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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,001	03/12/2004	Mark F. Bares	M297.12-0312	8774

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EXAMINER

PECHHOLD, ALEXANDRA K

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,001

Applicant(s)

BARES ET AL.

Examiner

Alexandra K Pechhold

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10, 15-20, 22, 23, 25-33 and 35-49 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 11-14, 21 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date filed 3/12/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3, 5, 6, 15, 19, 20, 22-25, 29, 30, 32, 35, 38-42, and 44-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al (US 5,860,231).**

Regarding claim 1, Lee discloses a system comprising:

- a mechanical arm, inherently disclosed as the boom that attaches to the working members (see generally Col 2, lines 15-17 and Col 3, line 65, though not shown),
- an attachment member, disclosed as the bucket (Col 1, line 32, Col 3, line 65) tiltably mounted about a pivot joint,
- an actuator, disclosed as actuators (7), operable connected to the boom,
- a power system, disclosed as hydraulic pump in claim 1, operably connected to the actuator (see claim 1),
- an electronic control, seen as controller (4), operatively connected to the power system and comprising an automatic vibration mechanism, disclosed as automatic vibration switch in claim 1 (Col 5, lines 57-60),
- an operator interface, disclosed as the control lever used by an operator in claim 1 (Col 5, lines 53-54),

- wherein the system comprises a default state, disclosed as a normal operation mode (Col 4, lines 20-25), and an activation state, disclosed as an auto-vibration operation (Col 4, lines 25-28).

Regarding claim 29, Lee discloses the limitations of the claimed invention as discussed with respect to claim 1 above. Furthermore, Lee discloses a vehicle in column 2, line 17, which therefore has a frame and ground engaging members supporting the frame, and an engine connected to the ground engaging members.

Regarding claim 2, inherently the boom, bucket, and arm of Lee have a range of tilt between a forward and rearward orientation, and when the activation state is activated (disclosed as auto-vibration operation in column 4, lines 25-28), the boom will be oriented at a certain range of tilt that will be predetermined.

Regarding claims 3 and 6, the length of time for the auto-vibration operation will inherently be predetermined based on the operator activating the auto-vibration switch (3) to control on/off action (Col 4, lines 1-5).

Regarding claim 30, Lee discloses the limitations of the claimed invention as discussed with regards to claims 2 and 3 above.

Regarding claim 5, the attachment member of Lee has a range of lift during its normal operation state, thereby having a minimum lift and maximum lift, and wherein the activation state comprises the attachment member being positioned within a predetermined segment of the range of lift, since when the on/off switch (3) is activated to start the auto-vibration operation, the attachment member will be located at a predetermined segment of the range of lift.

Regarding claim 32, Lee discloses the limitations of the claimed invention as discussed with regards to claims 5 and 6 above.

Regarding claims 15 and 35, a push button is disclosed as the auto-vibration switch (3) (Col 4, lines 1-5).

Regarding claims 19 and 38, an additional attachment mounted on the attachment member can comprise any structure attached to the boom of Lee, such as a nut, bolt, etc.

Regarding claims 20 and 39, Lee discloses a working member (see Abstract), and refers specifically to a bucket (Col 3, line 65, Col 1, line 32).

Regarding claims 22 and 40, Lee discloses a hydraulic system in the Abstract.

Regarding claims 23 and 41, Lee discloses that electrical power is known in the prior art devices (Col 1, lines 32-53).

Regarding claim 24, the actuators (7) of Lee inherently are equipped with pistons cooperating with the cylinder.

Regarding claims 25 and 42, Lee discloses a vehicle in column 2, line 17, which therefore has wheels and a frame, and the mechanical arm is inherently operable coupled to the frame.

Regarding claim 44, Lee discloses the method steps as discussed with respect to the system above.

Regarding claim 45, Lee discloses altering the system out of the activation state by activating the auto-vibration switch (3) to control on/off action (Col 4, lines 1-5) and thereby stop the vibration.

Regarding claim 46, Lee discloses a bucket vibrating (Col 3, line 65, Col 1, line 32).

Regarding claim 47, Lee discloses determining the optimal frequency and amplitude in column 3, lines 14-26.

Regarding claim 48, Lee discloses altering the flow of the actuator in column 4, lines 29-61.

Regarding claim 49, Lee discloses that electrical power is known in the prior art devices (Col 1, lines 32-53), thereby envisioning the alteration of a motor's drive direction.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4, 7, 10, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 5,860,231).**

Regarding claims 4, 7, 31, and 33, Lee fails to disclose if the predetermined segment of the range of tilt includes the extreme forward orientation or maximum lift. But it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the predetermined segment that is selected for the auto-vibration operation in Lee to be at the extreme forward orientation or maximum lift, since

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the desired position may require such an orientation, which can be selected by turning the auto-vibration switch (3) on when the attachment is at that position during normal operation.

Regarding claim 10, Lee fails to specifically disclose the activation state comprising the attachment member undergoing a minimum load. But it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the activation state in Lee to be there is a minimum load, since the desired time at which the operator chooses to activate the auto-vibration switch (3) can be the time when there is a minimum load if at such moment the vibration is required for the application.

5. **Claims 26 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 5,860,231) as applied to claims 1 and 29, respectively above, and further in view of Cobb et al (RE 30,769).** Lee fails to specifically disclose tracks on the vehicle, but discloses a vehicle in column 2, line 17. Cobb teaches a similar vehicle with a bucket mounted thereto where the vehicle has track assemblies (12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the wheels on the vehicle of Lee to be tracks as taught by Cobb, since such moveable endless track assemblies are commonly used in earth-working apparatuses to traverse the ground more easily.

6. **Claims 16-18, 27, 28, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (US 5,860,231) as applied to claims 1,15, and 29, respectively, above, and further in view of Heyne (US 6,226,902).** Lee fails to

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specifically disclose the push button, seen as auto-vibration switch (3), as being a joystick (claim 16), where the joystick is oriented in a predetermined orientation (claim 17), where the activation states comprises the joystick being joggled (claim 18), the operator interface comprising a console mounted on a frame (claim 27), and the interface comprising a remote control console. Heyne teaches a similar work vehicle including a frame, bucket, actuators, operated by a control system, which comprises a console (114) and joysticks (146, 148). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the switch (3) of Lee to include a joystick oriented in a predetermined orientation activated by being joggled, and a console mounted on a frame as taught by Heyne, since such operator configurations are commonly used on such machinery for easy operator control.

Allowable Subject Matter

7. Claims 8, 9, 11-14, 21, and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

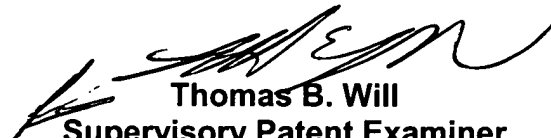
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Pechhold whose telephone number is (703) 305-0870. The examiner can normally be reached on Mon-Thurs. from 8:00am to 5:30pm and alternating Fridays from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703)308-3870. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.


Thomas B. Will
Supervisory Patent Examiner
Group 3600

AKP
2/16/05